ABSTRACT

A process for producing propylene oxide, which comprises the following steps:

oxidation step: a step of obtaining cumene hydroperoxide by oxidizing cumene;

epoxidation step: a step of obtaining propylene oxide and cumyl alcohol by reacting cumene hydroperoxide obtained in the oxidation step with propylene in the presence of an epoxidation catalyst; and

conversion step: a step of obtaining cumene by subjecting cumyl alcohol obtained in the epoxidation step to hydrogenation-containing reaction and recycling the cumene to the oxidation step,

wherein a concentration of 1,2-epoxy-2-phenylpropane contained in the reaction mixture after the oxidation step, is 1% by weight or less.